Regulators Review Template for Forms

Draft Version 4, 10-9-2017

Flag in Plots

1. Box plots
   a. Significantly different populations; look at variability of range for each radionuclides provided
   b. Biased lower than the others, would expect biased to be similar to or higher than systematic.

2. Q-Q plots - Slope break, sometimes flatter, sometimes steeper, which would be sign of different populations; slopes should be similar for various scan types of each radionuclide (not necessarily for K-40)

Flag in forms

   c. Multiple rounds of excavations
   d. Gamma scan or static not provided or range less than 2,000-3,000 counts per min; Scan and statics not consistent (one example showed a range of 2,900 to 9,400 which is normal)
   e. Off site and on-site lab results significant difference, e.g. > 2X
   f. Time Series – Time series show anomalies or missing time series, e.g. S024, Cs-137 was remediated but graphs not provided

Other – Open-ended: anything else that looks noteworthy

Enter into Review Spreadsheet:

   A. Sign of falsification? 1=yes, 0=no, plus add summary of why
   B. Failure to follow workplan? 1=yes, 0=no, plus add summary of why
   C. Level of concern/need for resampling
      a. 2=high level of concern, e.g. yes signs of potential deliberate falsification found, > 2-3 red flags from above
      b. 1= medium, e.g. no sign of potential deliberate falsification, some uncertainty due to missing or unclear information, 1 red flag found
      c. 0=low, e.g. nothing noteworthy observed
   D. Comments – Other – anything not already covered elsewhere
   E. Followup research questions = Do we need more info from Navy to make determinations
   F. Recommend for PCA analysis
   G. Discuss with group - ambiguous/grey area should be reviewed by the group
   H. Scoring ranking (this was the original scoring to prioritize our first reviews. I've changed the order of the spreadsheet to numberical order, but I'm preserving the scoring here in case we want to re-sort later by score.)

Minor issues – Do not flag:

1. A few negative results
2. K-S tests – not meaningful
3. Dave tried to look through lab data in the SUPR's, but that was not helpful